

REMARKS/ARGUMENTS

Request for Continued Examination:

5 The applicant respectfully requests continued examination of the above-indicated application as per 37 CFR 1.114.

1. Introduction

10 This is a full and timely response to the Office action of April 24, 2008. Claim 22 is introduced and an argument made demonstrating distinction between the claimed invention and known references. No new material has been introduced. Reconsideration of the application is respectfully requested.

2. Background

15 *Claims 1-6 and 8-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically that the run length is "changing" is not supported.*

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3. Discussion

25 If understood correctly, the Examiner is suggesting that "the paragraph describing the controller does not disclose how to change the NRZI pattern, only that the pattern has been selected appropriately during the design of the apparatus" and thus the determination that "the subject matter in question was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention" (current Office action, beginning with the last paragraph on page 3).

30 Also on page 3, second paragraph, of the current Office action, the Examiner

states that paragraph [0031] means that the Endec controller generates “*the specific NRZI pattern it was designed to generate. It does not say the controller changes the NRZI pattern.*”

5 The applicant respectfully traverses the rejection and asserts that a *prima facie* case with “a preponderance of evidence why a person skilled in the art would not recognize in an applicant’s disclosure a description of the invention defined by the claims.” (MPEP § 2163(III)(A)) has not been presented.

10 Quoting directly from paragraph [0031], “The Endec controller 105 generates a specific NRZI pattern as required” and “The specific NRZI pattern is designed according to the relative relationship between the recording speed and the FMD bandwidth”. However, the applicant is unable to locate teachings that indicate that the Endec controller cannot or is not capable of generating a different NRZI pattern when “required” or different NRZI patterns according to “to the relative relationship between the recording speed and the FMD bandwidth”. In fact, paragraph [0031] is
15 rightfully interpreted as teaching that the Endec controller can and is capable of generating different NRZI patterns according to “to the relative relationship between the recording speed and the FMD bandwidth”. The term “selected” in the phrase “a larger run length can be selected” obviously means there is more than one NRZI pattern to select from (paragraph [0031]). The specific NRZI pattern selected is
20 designed according to the recording speed, because for all purposes the FMD in any given recording device is fixed, while as is known, the same given recording device usually has more than one recording speed. Therefore the specific NRZI pattern selected also changes with recording speed.

25 In the case of the present claims, a difference between the more than one NRZI patterns to select from includes a difference in run length of that particular NRZI pattern (“a larger run length can be selected”, paragraph [0031]). The concept of a run length in an NRZI pattern is well known in the art, for example paragraph [0031] describes DVD-R/RW as having a maximum run length of 14T while Blu-ray discs are restricted to only 9T. Since DVD-R/RWs and Blu-ray discs use different run
30 lengths, how to set a specific run length is obviously also know in the art.

The present application discloses different recoding speeds, for example “1X” in Fig.2 and paragraph [0008] and “increased to 12X” in Fig.4, Fig.5, and paragraph [0009], [0019], and [0020]. The word “increased” obviously implies changing speeds. The applicant asserts that capabilities of single devices for utilizing a plurality of recording speeds are well known and need not be further described. The present invention also describes “adjusting pulse width within the multi-pulse train” (paragraph [0038], which one skilled in the art interpret as changing run length. A specific example is given in paragraph [0031] where “a larger run length can be selected as shown in Fig.8, where the 11T mark length is selected for the purpose of power control”. Because the selected run length of 11T is different than the maximum 9T run length permitted for Blu-ray discs in non-APC areas, obviously the device must be capable of selecting from and using different run lengths according to a given situation because using a single NRZI pattern having run length of 11T at all times will damage the disc. Since the technical problem addressed in this application concerns the inability of having a fast enough FMD response time during higher speed recordings (paragraph [0009]) and selecting a longer run length solves the FMD response time problem, higher speed recording is one of the situations where it is appropriate to select and use a longer run length.

Once given the application’s teachings of changing the run length according to bandwidth and recording speed, the applicant respectfully asserts that one skilled in the art would be able to build and utilize the teachings of the present disclosure without undue experimentation. **“A patent need not teach, and preferably omits, what is known in the art”** (MPEP 2164.01). Following on that premise, if one skilled in the art can practice teachings of the disclosure, there seems little valid rationale for the same one skilled in the art to doubt “the inventor(s), at the time the application was filed, had possession of the claimed invention”. On the contrary, one skilled in the art would believe the device already exists because they themselves even know how to do it.

“The test for sufficiency of support in a parent application is whether the disclosure of the application relied upon “reasonably conveys to the artisan that the

inventor had possession at that time of the later claimed subject matter." *Ralston Purina Co. v. Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985) (quoting *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983))." (MPEP 2163.02). The ability to practice teachings of the present disclosure
5 by one skilled in the art would convey to the artisan that the inventor did have possession of the claimed subject matter as required.

4. Claim 22

New claim 22 is introduced for consideration, and comprises the limitations of "a
10 run length longer during the APC mode than allowable without damage to the optical disc when not in the APC mode". Support can be found at least in paragraphs [0031], [0038], and Fig.8 and no new material has been introduced. Known references fail to teach, suggest, or motivate such limitations. Consideration and allowance of claim 22 is respectfully requested.

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5. Summary

It is not how to change the NRZI run length that is claimed and described specification. Given the current disclosure, one skilled in the art could easily deduce how to change the run length of the NRZI pattern using an appropriate signal or other
20 conventional means and the results would be predictable, an indication of possession.

The claims include the unanticipated inventive realization that changing, and possibly lengthening the run length according to the relationship between recording speed and FMD bandwidth can improve APC during high speed, high-density recordings. Choice in selection of the run length according to recording speed and
25 FMD bandwidth has been shown as present in the original specification (paragraph [0031]).

The present application discloses an alternative device and method for accurately maintaining constant laser power levels in high speed recording without requiring special, width extended laser pulses (paragraph [0015]) or a high-cost FMD
30 (paragraph [0006]) by using a low-pass filter (paragraph [0035]) and fixed-duty pulses

(paragraph [0034]) having a run length not constrained to the maximum run length in APC mode (paragraph [0031]) generated by an NRZI pattern have a desired run length selected according to the relationship between recording speed and the specific FMD bandwidth (paragraph [0031]). The applicant asserts that the disclosure as
5 described would reasonably convey “to the artisan that the inventor had possession at that time of the later claimed subject matter” as required under the written description requirement.

Applicant respectfully requests reconsideration of claims 1-6 and 8-21, and
10 consideration of new claim 22 and that a timely Notice of Allowance be issued in this case.

Applicant respectfully requests that a timely Notice of Allowance be issued in this
15 case.

Sincerely yours,

20  Date: 05/09/2008

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)